SUMMARY OF EPA/DNR/GBMSD CALL ON MONDAY
December 9, 2019

Participants on the Call:

1. EPA: Louise Gross and Daniel Schaufelberger
2. DNR: James Bonar-Bridges
3. GBMSD/NEW Water: Tom Sigmund, Pat Wescott, Bruce Bartel and Julie Maas
4. SEH: Tom Henning
5. Godfrey and Kahn: Art Harrington (in person with EPA) and Sarah Schenck, Jonathan Smies (Green Bay)

Purpose of this Summary: Describe the update that GBMSD provided to EPA and DNR on the call regarding the following:

1. Status of damage assessment and timeline for GAC repairs
2. Proposed Stack Test of the Incinerator operating without the GAC
3. Efforts to reduce use of Incinerator while GAC is being repaired.
4. Discuss contents of weekly deviation reports

Status/Timeline for Repairs to the GAC:

1. Replacement carbon: After learning that proprietary carbon from the GAC manufacturer would take weeks to months to arrive from Europe, GBMSD researched domestic suppliers of carbon. GBMSD was able to procure a similar carbon that meets the specifications for the GAC. Enough carbon to fill the entire unit was ordered from a supplier in California and has been delivered. A complete supply of carbon is onsite and ready to be placed into the GAC as soon as repairs are complete.

2. Grid: An internal inspection of the GAC allowed GBMSD to understand damage that occurred to the grid units that separate the vertical layers of carbon within the unit. The vertical layers are composed of 192 interlocking grid pieces. An internal inspection of the GAC was performed and damaged sections of the grid were identified. Replacement parts to reconstruct the damaged sections of the grid have been ordered from the GAC manufacturer in Luxembourg. The order is expected to arrive in the United States on December 13th. Once the order is processed by Customs, it will be at the GBMSD facility in approximately four calendar days.

3. Walls: Carbon inside the GAC is supported by fiberglass interior walls that surround the layers. The walls were damaged by the thermal excursion and require repair. A fiberglass contractor has inspected the damage and has developed a repair plan. The contractor is scheduled to begin the repair project starting on December 26th. Efforts to find a fiberglass contractor to begin the repair work sooner are underway, as this is a high priority.

4. Failure analysis: GBMSD in is the process of retaining a consultant to perform a failure analysis for the GAC. This analysis will be pursued on a parallel path with efforts to repair the GAC. While GBMSD will continue to use its best efforts to repair the GAC as soon as possible, GBMSD will reserve the right to refrain from starting up the incinerator with the repaired GAC until that failure analysis is completed so as to mitigate the risk of GAC failure following repair and startup.

Proposed Stack Test:

1. GBMSD plans to conduct stack test on Thursday of this week for incinerator operating without the GAC.

2. The proposed stack test procedure will include sampling and laboratory analysis of flue gas for Hg emissions while operating the incinerator without the GAC. During the proposed stack test, the incinerator will be using a feed rate of sludge in excess of 85% capacity with all other incinerator control systems operating within established parameters

3. GBMSD also plans to obtain a sample of the sludge taken during each of the three test runs while the stack test is being conducted and will submit the sludge sample for laboratory analysis so that sludge sample analytical results and associated conversions for estimating Hg emissions can be compared to actual stack test results for Hg.

4. On December 9, 2019, a stack test plan has been submitted by GBMSD to DNR and approved by DNR on the same date.

GBMSD Efforts to Mitigate the Use of the Incinerator before GAC Repair:

During the call, the goals of GBMSD to preserve liquids treatment capabilities, minimize the air emission impacts associated with operating without the GAC, minimize internal damage to the refractory in the FBI, and maximize landfilling options were discussed. GBMSD has developed a short-term solids processing plan in accordance with these goals which was described during the call. GBMSD explained that treatment staff will begin the process of returning sludge filled aeration basins back to stand by status starting on December 9, 2019. GBMSD explained the importance of maintaining adequate capacity within the treatment system for future high flow, weather related events. With these goals in mind, GBMSD explained that it will maximize landfilling options to remove treatment plant solids from the aeration basins. Landfilling of treatment facility sludge will be supplemented with the operation of the FBI system without the GAC in order to effectively preserve the capacity and operation of the De Pere and Green Bay liquids treatment trains. Efforts to return the GAC to operation have been underway and will be urgently pursued.

During the call, GBMSD described the following regarding sludge handling factors that limit the amount that can be landfilled to achieve the goals outlined above:

1. The maximum amount of truckloads a day that GBMSD can prepare for shipment is 10.

2. This is not enough to meet balancing requirements for the facility for proper operation of the wastewater treatment facility

3. It was explained that all of the landfills that were contacted by GBMSD will not accept lower moisture content sludge as dried for incineration (approximately 40% solids) since the lower moisture content sludge creates problems for handling for the landfill equipment

4. Consequently, more time and effort is required for GMBSD to prepare the sludge at the percent of solids (approximately 20% solids) required for handling by the landfills. This additional preparation effort by GBMSD limits the amount available for landfilling to 10 trucks per day.

During the call, GBMSD described the operational schedule for the incinerator during the past week as well as the plans for land disposal and incinerator operations for the next two weeks. An extended schedule is under development to extend through GAC repair and restart. GBMSD described that the actual FBI run dates and times, along with landfill loads, will be recorded and incorporated into the weekly deviation reports that will be filed with DNR/EPA until the GAC is operational. The following spreadsheet provides more detail of this landfilling/incinerator operational schedule that was discussed during the call:

Date	Incineration Operation	Landfilling	Notes
12/04/19	Partial On	No	Sludge to incinerator (inc.) on at 1200 hrs.
12/05/19	Partial On	No	Planned inc. shutdown 1400 hrs.
12/06/19	Partial On	10 truckloads	Restart inc. 1200 hrs.
12/07/19	On	No	
12/08/19	Partial On	No	Planned inc. shutdown 1400 hrs.
12/09/19	Off	10 truckloads	
12/10/19	Off	10 truckloads	
12/11/19	Partial On	10 truckloads	Inc. start up for mercury testing 12/12/19
12/12/19	On	No	Mercury emissions testing
12/13/19	On	No	Air permit RATA testing
12/14/19	On	No	
12/15/19	Partial On	No	Planned inc. shutdown 1400 hrs.
12/16/19	Off	10 truckloads	
12/17/19	Off	10 truckloads	
12/18/19	Off	10 truckloads	
12/19/19	Off	10 truckloads	
12/20/19	TBD		Operating schedule under development

Weekly Deviation Reports:

1. The first weekly deviation report will be filed by GBMSD with DNR (copies to EPA) on December 9th.
2. GBMSD explained that it has agreed to perform weekly sludge analysis, per DNR's request, during all weeks that the incinerator is operating without the GAC.
3. During the call, GBMSD explained that the report will not contain all of the parametric data from last week since it takes some time to summarize all of the operating records. GBMSD anticipated that this parametric information will be provided later this week.
4. There was a discussion of whether the weekly deviation report could be due on Wednesday rather than Monday of each week for these reasons described in no. 3 above. James Bonar Bridges indicated that he will discuss this request with his client and get back to GBMSD in the near future.

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